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ABSTRACT

In recent research cognitive therapists have been paying increased attention to the linkage between thought, feeling, and the nature of the unconscious process. Although traditional cognitive theory maintains that cognition precedes affect, recent research on the relationship has shown that affect may precede cognition. It is only in those cases in which cognition is used in an information processing, linear, computer analog manner that cognition precedes affect. The concept of spherical cognition and intuition, in which perceptions are global rather than sequential, supports affect preceding cognition, in that discrimination occurs without recognition in the unconscious process. In unconscious self-deception, intuitive, spherical cognition works to keep undesired information out of an individual's awareness. Some specific implications of these findings about the cognition/affect linkage in the unconscious process hold for cognitive psychotherapy. Knowledge organization follows three structural aspects: (1) the metaphysical hard-core, i.e., self-knowledge present without words; (2) the protective belt, the personal identity which emerges and which is more near conscious awareness of onself; and (3) research plans or models that simulate and anticipate reality. Individual change can occur at both the metaphysical hard-core and the protective belt levels. (BL)

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THE COGNITION/AFFECT LINKAGE AND THE UNCONSCIOUS IN COGNITIVE THERAPY

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THE COGNITION/AFFECT LINKAGE AND THE UNCONSCIOUS IN COGNITIVE THERAPY

In a recent conversation with a long time friend who employs primarily cognitive-behavioral tactics in working with clients in a community mental health clinic, I asked, "Don't you ever suspect that there is a cauldron of feelings and meanings lying below the surface that isn't particularly influenced by thought stopping, cognitive rehearsal and some of the other straight-forward, logical approaches you employ?" He answered, with a twinkle in his eye, "No!" (which I interpreted, at least partly, to mean "Yes"), and then he went on to say something to the effect that he can't "joust windmills" or "cast out demons" or something of that sort. What I know is that I have always been perplexed by certain of my own emotional reactions which I seemed neither to understand nor control readily. Little wonder that psychodynamic models of personality have held some appeal for me. And yet psychoanalytic theory, in particular, seemed too negative, to overemphasize the role of hidden negative forces as influences upon behavior. The thread in existential theory which emphasizes individual responsibility-taking and the potential for change has always held an optimistic appeal and yet giving primary emphasis to such deceptively simple aspects of the therapeutic relationship as genuineness, empathic understanding, and unconditional regard (Rogers, 1961) seemed (in my mind) to leave too much to faith and too

little to explicit principles for describing personality change. (I now think the problem was as much a lack of my "faith" in the process as it was a lack of explicit principles.) Cognitive/behavioral approaches had the appeal of providing explicit tactics and explicit principles for change (Ellis 1962; Beck, et al. 1979) but didn't settle nagging personal doubts about the relationship between thought and feeling and the nature of unconscious processes. I expected my sortie into these topics as treated in cognitive theory to provide some rather dramatic contrasts with psychodynamic and existential theory. To my surprise, I found not so much contrasts as convergence. My sortie culminated in the reading of a broad-based, impressively articulated and integrated work, Cognitive Processes and Emotional Disorders (Guidano & Liotti, 1983), which showed some striking parallels with another book which I had read recently, Humanistic Psychology: A Synthesis (Tageson, 1982). But, this is getting ahead of the story. In reading Beck et al.'s work on cognitive therapy of depression, I puzzled over the cognition/affect linkage and the nature of unconscious processes, implied but not treated directly (e.g., the word "unconscious" is not listed in the index).

My subsequent reading has led me to the following conclusions regarding the treatment of these phenomena in cognitive theory:

1) While a good case can be made for cognition preceding affect in some instances (Beck, 1979; Ellis, 1962), cognition and affect may also be virtually simultaneous;
2) Unconscious processes of three types are identifiable:
   a) Discriminated affective responses which occur in response to events which are not consciously recognized.

b) Problem solving processes which occur at an unconscious level

c) Unconscious self-deception which occurs in response to certain events. Individuals are motivated to deny some element in the event and to deny the self-deception itself.

I would like to discuss each of these in turn, presenting supporting evidence.

Does Cognition Always Precede Affect?

In an article in the American Psychologist Zajonc answers this question with a resounding "No" (Zajonc, 1980). He contends that affect may precede cognition and further, that the two may be relatively independent. "Affective judgments may be fairly independent of, and precede in time, the sorts of perceptual and cognitive operations commonly assumed to be the basis of the affective judgments. Affective reactions can occur without extensive perceptual and cognitive encoding, are made with greater confidence than cognitive judgments, and can be made sooner" (Zajonc, 1980, p. 151).

What is the evidence on which Zajonc based his conclusions? An experiment by Moreland and Zajonc (1979) is typical of the evidence presented by Zajonc in support of his point of view. Subjects were given varied (0 to 27) exposures to Japanese ideographs following which they were asked to make a variety of liking and recognition judgments. The results demonstrated that:

1) liking increased with repetition of the ideographs.

2) even those ideographs which were not recognized by subjects as repeats were responded to with greater liking.

3) the liking response toward repeated ideographs was registered more rapidly than the recognition response.

Zajonc concludes, on the basis of these and further experiments (Kunst-Wilson & Zagonc, 1980), that:

1) emotional responses may precede cognition;

2) emotional responses may occur in the absence of cognition;

3) emotional judgments are made with more confidence; and

4) cognition and affect are under the control of separate and partially independent systems.

Lazarus (1982) presents strong and convincing arguments against some of Zajonc's conclusions. He argues that cognition always accompanies affect. In those cases where it does not precede affect (such as those cited by Zajonc), it occurs simultaneously with affect and is a qualitatively different sort of cognition. Cognition which does precede affect is the computer analogue or "information processing" cognition which is serial in nature in which information is received, registered, and transformed into meaning, followed by an emotional response. This cognitive process does span time and one could expect affect to follow cognition. With regard to this as an exclusive model for cognition Lazarus states, "We do not always have to await revelation from information processing to unravel the environmental code . . . perceptions are often global or spherical rather than built sequentially from structural elements . . . emotionally relevant meanings (connotations) could be triggered by inputs whose full-fledged denotations had not yet been achieved.

All this accords nicely with Zajonc's insistence that emotional or affective meanings come early, even before one knows what the

object or event is (1982, p. 1021). Lazarus cites his studies of "autonomic discrimination without awareness" or "subception" to support his argument. Shock was paired with certain of a group of nonsense syllables to which subjects were exposed (Lazarus & McCleary, 1951). Upon subsequent trials, subjects showed a heightened psychogalvanic response to the syllables paired with shock even though some of the paired syllables were misperceived or misreported. Lazarus' contention is that discrimination (cognition) with emotional response occurred even though accurate conscious recognition was absent. Lazarus concludes, ". . . emotion or feeling is never totally independent of cognition, even when the emotional response is instantaneous and nonreflective. . . . The thought and feelings are simultaneous. . . . By and large cognitive appraisal (of meaning or significance) underlies and is an integral feature of all emotional states. Are there exceptions? I think not" (1982, p. 1021).

Lazarus argues convincingly that the inability to explain the cognition/affect linkage through a computer analogue model of cognition does not entail the conclusion that affect occurs in the absence of cognition but, rather, that the existence of a different type of cognition (spherical) better satisfies the evidence that discrimination occurs without recognition than does the rejection of the presence of cognition.

Unconscious Processes

Unconscious Affective Responses

What we have here, then, are meaningful emotional reactions without conscious awareness of what triggered the reaction and certainly without knowing why. It has been said that "We know more than we

know." That is, we have an intuitive sense of something meaningful occurring without being able to clearly articulate the cues which triggered the impression nor the rules we employed in deciphering the cues. It does have the sense of "being all of one piece" or "happening all at once." We just know, without being able to articulate what or why. This certainly accords with Lazarus' notion of "spherical" as opposed to "linear" cognition. Meaning and affect are there "in one piece" rather than affect being the product of a series of logical operations which Lazarus calls a "seriatim." This notion of meaning and affect all at once as a whole experience is reminiscent of Merleau-Ponty's (1963) discussion of the nature of nascent consciousness in which he describes the infant experiencing events as an "indecomposable moment of signification." That is, there is no object/subject separation and no self-reflexive awareness of the subject doing it and the "whys and wherefores" that govern the response. Could it be that this pre-object/subject separation experience is carried over into later life intact as an immediate, meaningful response (including affect) to events?

What we have been talking about is akin to the much-maligned concept of intuition. Webster (1974) defines intuition as "the power or faculty of knowing things without conscious reasoning." This definition accords very nicely with the data regarding discriminating affective responses which occur in the absence of any conscious recognition. (Of course, calling it intuition explains nothing about the mechanism.) We have been looking at one side of intuition, the reactive side. That we employ non-conscious cues and rules in problem solution is a well-documented phenomenon. At a common sense level we just know but

can't say why. (Women have been accused of over-using it.) The intuitive stage in intellectual development (whose residuals extend into systematic cognitive stages) has been well documented by Piaget (1952). The incubation stage in creative thinking has been characterized as an unconscious processing of stored information and new experiences resulting in the "aha" illumination. It can be said, then, that we "know more than we know" in reacting emotionally to events and in creative problem-solving. More will be said later about the relevance of this to psychotherapy.

Unconscious Self-deception

Gur and Sackeim (1979, also Sackeim and Gur, 1978) present evidence from which they draw two general conclusions:

1) Self-deception (denying an experience to awareness) occurs without knowledge of one's deception.
2) Attitudes toward oneself influence the occurrence of self-deception.

Here we have quite a different condition existing than just the matter of unconscious, intuitive "cognition" occurring. The cognition, in this case, is assumed to be unconscious because it serves the purposes of the individual to keep it out of awareness.

Gur and Sackeim (1979) found that the GSR responsivity to one's own voice was higher than to voices of others. Following failure experiences subjects were more likely not to recognize their own voices than they were following success experiences. However, when denying the presence of their own voice, their GSR responsivity was higher, consistent with the GSR pattern related to own-voice recognition. These

experiments are purported to demonstrate that

1) Subjects may be unaware of what they "know" (consistent with Moreland and Zajonc, 1979 and Lazarus and McCleary, 1951).

2) This lack of awareness of what, at another level, is known is a motivated lack of awareness, or a lack of awareness "on purpose" and may have to do with attitudes toward the self.

My sense of "deja vu" in pondering these formulations in cognitive theory is captured nicely in Zajonc's conclusion to his article, "I began this paper with a quotation from Wundt, and it must be apparent that another spirit has emerged as I have developed my arguments--that of Freud. The separation of affect and cognition, the dominance and primacy of affective reactions, and their ability to influence responses when ordinary perceptual recognition is at a chance level are all very much in the spirit of Freud, the champion of the unconscious" (Zajonc, 1980, p. 172).

Some Implications for Cognitive Psychotherapy

As a backdrop to some specific implications which these findings hold for cognitive-behavioral psychotherapy, it is worthwhile to briefly sketch some of the theoretical formulations of Guidano and Liotti (1983). Their theory seems to accommodate all of the implications of cognition occurring simultaneously with affect as well as preceding it and the relationship of unconscious processes to cognition mentioned in the previous section. It is the detailed and broad-based nature of their treatment which makes it impossible to give more than a very cursory

sketch here. In his foreword to their work, Mahoney comments,

> In what must be regarded as an impressively broad and ecumenical treatise, they have managed to integrate the works of such traditionally disparate writers as Piaget, Bandura, Beck, Bruch, and Weimer. . . . It is in my opinion, one of the most creative and stimulating volumes to have appeared in recent years" (Mahoney in Guidano & Liotti, pp. vi-vii).

The section on knowledge organization is most relevant to our purposes. They identify three major structural aspects of knowledge organization, viz., the metaphysical hard-core, the protective belt, and research plans.

The metaphysical hard-core. This is a "deep, relatively indisputable" structure which ". . . is identified essentially in the tacit self-knowledge that has been progressively elaborated during the course of development and that . . . is for individuals a kind of implicit general view of themselves" (Guidano & Liotti, p. 66).

The keys in this definition are the "tacit," "implicit" and "self-knowledge" aspects. That is to say, the "metaphysical hard-core" is self-knowledge present without words. It is, it is known, but is not expressed and could not be fully expressed. It just is and is known. This is probabably partially accounted for by the fact that we know about ourselves in significant ways before we know language. The evidences of affective reactions without conscious cognition cited earlier may well be evidences of the "metaphysical hard-core." That it is deep and "relatively indisputable" suggests that it is covered by surface structures (thus not easily accessed) and is resistive to change. Why it is resistive to change is, in part, because there is no alternative.

"Self-knowledge is irrefutable, more because of a methodological necessity (determined by the absolute lack of real alternatives) than because of a methodological choice . . ." (Guidano & Liotti, p. 66). Or, as Zajonc states in speaking of unconscious affective judgments, "Perhaps our confidence in these judgements derives from the Cartesian tradition that allows us to doubt everything except our own feelings" (Zajonc, 1980, p. 157). The parallel between this description of a core structure and descriptions in psychodynamic and humanistic/existential theories is obvious.

The protective belt. The protective belt is the personal identity which emerges consistent with the metaphysical core and which is a more nearly conscious awareness of oneself. Two of the major components of personal identity are self-image and self-esteem, or how one views and values oneself. Self-esteem, for one thing,

> defines what range of emotions we can recognize as part of ourselves . . . . In fact, it often occurs that individuals cannot recognize certain feelings as their own emotions because the emotional range congruent with their self-image is rather limited (Guidano & Liotti, 1983, pp. 69-70).

This is a clear statement on the side of the existence of self-deception regarding emotions.

Research Plans. Just as personal identity is consistent with and protects the metaphysical core, research plans ("models that simulate and anticipate reality") emanate from and are consistent with personal identity. Such plans basically lay down the rules regarding the assimilation of experience and the solving of problems, that is, what one is to attend to and take in (and not attend to) from the multitude of stimuli available, and how one goes about solving personal problems.

The following conclusions seem warranted regarding the Guidano and Liotti model:

1) It readily accommodates the notions of cognition preceding affect (certain research plans resulting consistently in certain feelings), of affect and cognition being simultaneous in the metaphysical core, and of unconscious self-deception (self-esteem rules resulting in mislabeling or not recognizing feelings on purpose).

2) It demonstrates nicely my impression of the convergence between cognitive, psychodynamic and humanistic/existential models.

3) It shows the levels at which change may occur and the natural resistance to change to be expected at the levels of personal identity and the metaphysical core. "Thus one may expect that the deeper the requested change, the stronger the resistance and the emotional stress," and, ". . . The process should always be considered as gradual and accompanied by varying degrees of affective distress. In particular, the latter will be more intense the more deeply one modifies the attitude toward oneself" (Guidano & Liotti, 1983, p. 92).

Change Strategies

Are cognitive therapeutic strategies well-suited to achieving changes in deep structure? No conclusive answer to this question exists. Cognitive change strategies fit the computer-analogue model of cognition better than the "spherical" model. For example, both Ellis (1962) and Beck (1979) proceed as if thoughts produced emotions and the emotion-producing thoughts were fairly readily available to consciousness where they can be examined and challenged. Do such strategies, in fact, alter meanings related to personal identity of the "metaphysical core" (Allport

and others questioned the degree to which the "metaphysical core" could be substantially altered.) A tip-off to the fact that Ellis is aware that his approach makes life more bearable through adjusting primarily the research plans (rules of assimilation and problem-solving) is his oft-made statement that changing irrational ideas requires "work and practice, work and practice." Were there a fundamental change in deeper structures, the rational thoughts would be a spontaneous, habitual outcome of shifts in deeper beliefs about self. Guidano and Liotti argue that changes in deeper structures may proceed from top down by dealing first with conscious beliefs and proceeding to tacit or implicit beliefs which are a part of the deeper structures.

> . . . the therapeutic process is like a strategic procedure, the final aim of which is a modification of the patient's deep rules, regulated step-by-step, by the cognitive changes resulting from the applied therapeutic techniques ("tactics") (Guidano & Liotti, 1983, p. 163).

Of course, the therapies which seem to favor "spherical-intuitive" rather than computer-analogue approaches (for example, Milton Erickson's hypnotic approaches and Fritz Perls' Gestalt experiments) would question the feasibility of the therapist even knowing the deeper material to be worked with in a purely logical, rational fashion. They would contend that the very nature of the deeper material to be worked with suggests it cannot be grasped other than "spherically," that is, immediately, intuitively more than rationally, and that it is only in experiencing it in this fashion that it begins to unfold in conscious understanding. Thus, experiencing in the "here and now" and capturing experiences through metaphor may be the preferred "tactics" for dealing with deep material.

The cognitive approaches may fall victim to their own sword, over-rationalization.

The Therapeutic Relationship

Where humanistic/existential approaches may have erred in introducing too little structure and possessing too few defined strategies, cognitive therapy has erred in the direction of too little attention to the relationship (and the person of the therapist) and too much attention to strategy. Ellis (in Corsini, 1973) provides an excellent example of the tilt toward tactic.

> Instead of using most of the conventional methods of psychoanalytic, client-centered, reassurance, and existential therapy, the rational-emotive practitioner mainly employs a fairly rapid-fire active-directive-persuasive-philosophic methodology. In most instances, he quickly pins the client down to a few irrational ideas . . . .

In all fairness, increasing attention has been given to the relationship in cognitive therapy. Beck et al. (1979) devote an entire, though short, chapter to "The Therapeutic Relationship." Guidano and Liotti (1983), while extensively detailing tactics for therapeutic change, bring us back again, full circle, to the psychodynamic and existential models. "In itself, the fact that the relationship is meaningful to the patient could influence, more than anything else, the efficacy and incisiveness of the therapeutic process" (p. 126).

If conscious and unconscious processes, personal identity and a metaphysical core are considerations for the client in therapy, they are likewise for the therapist. It is not only a computer-analogue, logico-deductive matter for the therapist. The therapist is there as a

person-scientist and matters of transference, counter-transference and resistance cannot be minimized. Attention to therapist personal growth expands the artist side of the artist/scientist equation. In the language of Guidano and Liotti, it provides for more open and intuitive personal identity and metaphysical core along with the research plans. We are talking about the therapist having faith in him or herself so that the research plans, though ordered, spring from the spontaneous intuitive sense of what is occurring with clients at deeper levels.

I conclude with two quotes from a master of theory of literary criticism, Northrop Frye:

> You can't distinguish the arts from the sciences by the mental processes the people in them use: they both operate on a mixture of hunch and common sense. A highly developed science and a highly developed art are very close together, psychologically and otherwise (p. 24).

and

> . . . so much of a writer's best writing is or seems to be involuntary (p. 92).

And so may it be of psychotherapy.

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